The Singapore American (p.4)

Fine tune your brain to greater power

By RITA HURNI

The relationship between the brain and human consciousness has occupied philosophers, psychologists and other scientists since time immemorial. But it is only in the latest decade that scientific research has opened up fields leading to more progress in understanding than in all previous history. The new discoveries reveal clearly that the human brain and its potential are much more powerful than ever imagined, and that brain functions such as intelligence, memory and creativity can be increased dramatically through brain stimulation.

A number of startling devices reported to enhance various brain functions have recently appeared. Although such discoveries are increasingly within the reach of the general public, you may not yet have heard about them. Three months ago, I came to discover and explore an application of such a new device at The Monroe Institute in Faber, Virginia, U.S.A. This organization uses a process called Hemispheric-Synchronization, or Hemi-Sync, that boosts a variety of our brain capabilities.

Getting to Know Both Sides of Your Brain

For the past 150 years or so, scientists have known that the human nervous system has a crossover connection to the brain. The left hemisphere of the brain controls the right side of the body and the right hemisphere controls the left side. A thick nerve cord, called *corpus callosum*, cross-connects the two cerebral hemispheres. It was also known that the function of speech and language-related capabilities are predominantly located in the left hemisphere of the brain.

In the 1960s, a long-time focus in neuroscientific studies led to extraordinary new insights. Evidence showed the puzzling fact that despite the connection, each hemisphere operates independently and in different modes. The mode of the left hemisphere is verbal and analytical and that of the right nonverbal and creative.

The main theme that emerged was that most humans use half their brains at a time, with brain activity predominantly focused in the left hemisphere. In other words, the modern human being is primarily a "half-brained" individual using verbal, analytical capabilities (left hemisphere) and neglecting the nonverbal (right hemisphere) form of knowledge.

Further exciting discoveries were made in the early 1970s. Brain waves of individuals in deep meditation, measured by an electroencephalograph, showed a shift from the usual asymetrical – one hemisphere dominant – pattern into a state producing a unified wave. The two hemispheres operated simultaneously and in cooperation.

This unusual state, called brain synchrony, was concomitant with beneficial mental states such as deep relaxation, creative insight, intensely focused attention and enhanced learning, with brain wave frequencies characteristic for each condition. However, brain synchrony could only be produced at will by seasoned meditators, and the dominant brain wave frequencies seemed impossible to predict or control. But now, a layman's discoveries have made it possible to benefit from the state of brain synchrony without being an adept meditator.

Spontaneous Experiences

Robert Monroe, founder of The Monroe Institute, discovered a process that can induce and control bilateral synchronization. A former broadcasting executive, he began researching the effects of sound wave forms on human behavior as a consequence of spontaneous experiences he started to undergo in 1958.

One evening, Monroe found himself bouncing against the ceiling of his bedroom. Looking below he perceived two figures. One was his wife, the other himself. Being a self-reliant, curious and stubborn individual, this first bodiless experience did not send him onto the psychoanalyst's couch, nor did he become a mystic. Instead, he started to explore this "out-of-body" state, making detailed notes. The written accounts can be read in *Journeys Out Of The Body* (Doubleday, 1971) and *Far Journeys* (Doubleday, 1985).

Although his research had begun with the desire to understand and recreate the physical vibrations that caused his out-of-body experiences, it soon became clear that his discoveries were more significant.

Sound Waves Tickling the Brain

Sound waves, like electrical brain waves, are defined by frequency, amplitude and phase. Monroe started to experiment with sound waves to influence the electrical activity of the brain and found that it indeed responded to certain sound patterns, an effect he patented in 1975 as the Frequency Following Response. These sound patterns, he noted, could induce various states, such as deep relaxation or sleep.

Based on this discovery and those of other researchers, he applied a system called binaural beats. These are pulsations that the brain produces when two tones of different, specific frequencies are presented with stereo headphones to each ear. The result was that not only did the Frequency Following Response take place in the area of the brain responsible for hearing, but the whole brain resonated with wave forms that were the same in frequency, amplitude, and phase. The exceptional, balanced brain state thus obtained is known as Hemispheric Synchronization or Hemi-Sync.

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The implications of this new process were exciting. It meant that by listening to separate, carefully selected sound signals, both hemispheres could be focused into unified brain wave frequencies, thus evoking desired mental states. Moreover, the Hemi-Sync signals could modify a state of mind, and the different states could be learned and recreated from memory, as a biofeedback process. Exploring the uses of Hemi-Sync and with results accumulating, it became apparent that the process had a wide range of applications.

Using Your Whole Brain

Since 1978, Hemi-Sync techniques have been used increasingly in the United States. A number of elementary schools, colleges and universities, as well as sectors of the U.S. Army, use Hemi-Sync technologies for enhanced learning, to increase such functions as relaxation, cognitive learning, visualization, and attention focusing. This device produces a variety of inaudible Hemi-Sync signals that can be mixed with music or other sounds and sent through stereo headphones or external speakers to the students. The synthesizer can be used for personal practice.

Hemi-Sync is also used successfully in the field of psychotherapy – for the treatment of substance abuse and psychosomatic illness, reducing stress and anxiety, working with terminally ill patients, and teaching autistic children.

A series of Hemi-Sync tapes exists for use during illness or surgery, and stroke victims using the technique have shown remarkable improvements in speech and motor skills. Forty out of 45 insomniacs testing Hemi-Sync under medical supervision reported the system to be at least as effective as medication, without the side effects.

The Monroe Institute uses its Hemi-Sync technique for exploring states of expanded awareness leading to thresholds of new consciousness levels. It is this process I explored at their Institute. During the week-long training I encountered a kaleidoscope of shifting mental images, mirroring flashes of deep insights, spontaneous feelings of elevation and alternate states that may be seen as colorful projections or accepted as an aspect of a greater reality.

A series of cassettes is available for home use, and I am now using Hemi-Sync technology at home, continuing my explorations in consciousness. I'm finding out more for myself. You could too.

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